# International Training Centre for Operational Oceanography (ITCOO)

INCOIS, MoES

Govt. of India, Hyderabad, India - 90

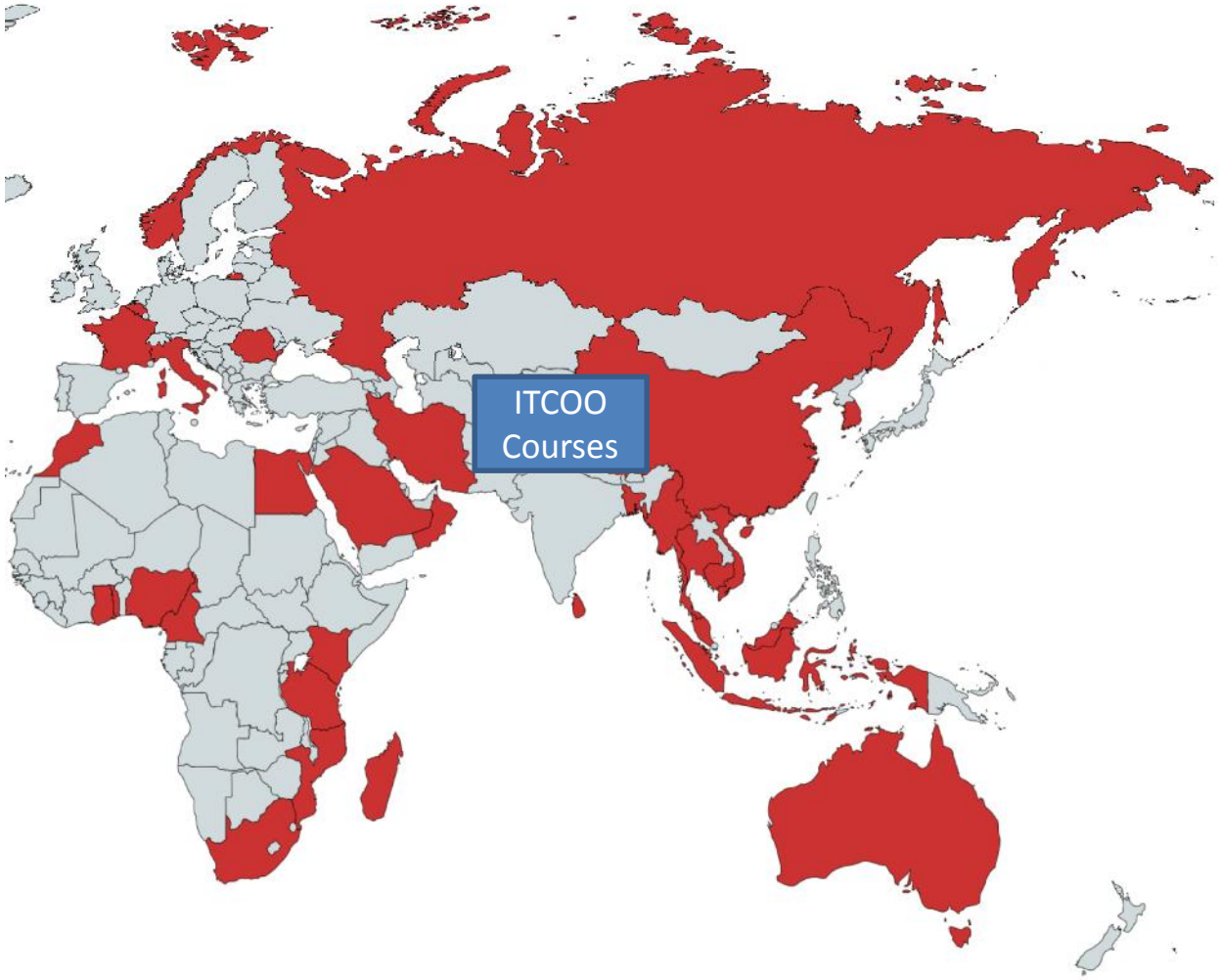
# About ITCOocean

- Approved in Dec 2012 as a part of XII Five Year plan initiatives of INCOIS.
- First set of classes started in July 2013.
- Successfully conducted 32 courses, which includes both National and International.
    - 3 weeks – 1no., 2 weeks - 6 no., 1 week - 20 no., Few days - 2 no
- Participants from 36 countries (mainly Indian Ocean Rim) participated in the courses.
- A total of ~900 students (~750 Indian, ~150 Foreign nationals) were accommodated in these courses.

# Category 2 Centre (C2C)

- ITCOO was Proposed as a UNESCO Category 2 Centre in, 29thSession of IOC Assembly 20-29 June 2017.
- Formally approved in November, 2017 and approved by Cabinet, Government of India.
- We are in the process of forming our Governing Council inviting members.
- After Iran, India is the only C2C centre in IOC category.

# Countries benefitted by ITCOO courses



Academic Block

Hostel Blocks

# ITCOocean Courses (year 2018)

- Training on **"Discovery and Use of Operational Ocean Data Products and Services"** was conducted during 18 – 22nd June, 2018. (Number of Participants - 24 (16-Indian, 08 – foreign)
- **"Integrated Intersessional Meetings and workshop of ICG/IOTWMS"** was conducted from 26th June – 14th July, 2018.
- Training on **"Data Visualization of Marine Met data (using Ferret)"** was conducted from 27 – 31st August, 2018. (Number of Participants – 24 (14-Indian, 10 foreign)
- Training on **"Operational Ocean Services, Data and Data Products"** was conducted from 18 – 19th August, 2018 (18 coast guard officials)
- **"Fish-catch Time-Series Forecasting with R"** was conducted under NOAA-MoES collaboration from 24th – 28th August, 2018 (24 Indian participants attended).
- **"INCOIS Service Utilization Training for Indian Air Force Trainee Officers"** was conducted for Indian Air Force trainees on 10th October, 2018 (5 IAF and 3 Sri Lankan AF trainees attended)

# Programme Schedule: Geospatial Techniques for Coastal Mapping and Monitoring (using QGIS) 26 - 30 November 2018

| Time | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
|---|---|---|---|---|---|
| **09:30 - 11:00** | **Welcome and Course Introduction** | Introduction to Coastal Mapping and Monitoring using RS and GIS (KH Rao) | Geospatial Applications of Mangrove and Coral Reef Mapping (SK Dash) | Hands on: Converting Tabular Data into Vector Format (Chandrashekhar V) | Map composition and generation of KML (Shivakumar H) |
| | Introduction to Remote Sensing and GIS (KH Rao) | Geospatial Applications of Hazard Mapping (Prakash Chandra Mohanty) | Hands on: Coral Reef Mapping (Shivakumar H) | Working with secondary data (sea level, NGDC data) (Chandrashekhar V) | Open source data and geospatial tools (N. Kiran Kumar) |
| **11:00 - 11:30** | **Tea/Coffee** | **Tea/Coffee** | **Tea/Coffee** | **Tea/Coffee** | **Tea/Coffee** |
| **11:30 - 13:00** | Introduction to QGIS Software and other open source software (N. Kiran Kumar) | Hands on: Coastal Risk Assessment (Tsunami) (Prakash Chandra Mohanty) | Hands on: Mangrove Mapping (Sai Bharadwaj) | Generation of DEM using ASCII data (Sai Bharadwaj) | Test |
| **13:00 - 14:00** | **Lunch** | **Lunch** | **Lunch** | **Lunch** | **Lunch** |
| **14:00 - 15:30** | Generation of baseman and Visualization of spatial data-I (Prakash Chandra Mohanty) | Hands on: Coastal Risk Assessment (Storm Surge) (Prakash Chandra Mohanty) | Generation of coral reef and mangrove maps (Prakash Chandra Mohanty) | Generation of contours, slope and aspect using DEM (Sai Bharadwaj) | Feedback and Closing Ceremony |
| **15:30 - 16:00** | **Tea/Coffee** | **Tea/Coffee** | **Tea/Coffee** | **Tea/Coffee** | **Tea/Coffee** |
| **16:00 - 17:30** | Generation of baseman and Visualization of spatial data-II (Prakash Chandra Mohanty) | Shoreline Mapping (Prakash Chandra Mohanty) | participant Presentation on Coastal Risk assessment | participant Presentation on Feature Extraction (classification technique) | Visit to INCOIS Facilities (Tsunami, PFZ, OSF Labs, Ground station) |

# 34TH

AND COUNTING